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(54) Title: 5-AMINO-2-CARBONYLTHIOPHENE DERIVATIVES FOR USE AS P38 MAP KINASE INHIBITORS IN THE TREATMENT OF INFLAMMATORY DISEASES

$$R4$$
 S
 N
 $X-R3$
 (I)

(57) Abstract: The invention provides the use of a compound for the manufacture of a medicament for the prophylaxis or treatment of a disease state or condition mediated by a p38 MAP kinase; the compound being defined by formula (I): wherein: R1 and R2 are the same or different and each is selected from hydrogen, C₁₋₄ hydrocarbyl, halogen and cyano; X is selected from C=O, C=S, C(=O)NH, C(=O)O, C(=O)S, C(=S)O and C(=S)S; R3 is selected from aryl and heteroaryl groups each having from 5 to 12 ring members, the aryl and heteroaryl groups each being unsubstituted or substituted by one or more substituent groups R⁷ selected from halogen, hydroxy, trifluoromethyl, cyano, nitro, carboxy, amino, carbocyclic and heterocyclic groups having from 3 to 12 ring members; a group Ra-Rb wherein Ra is a bond, 0, CO, X1C(X2), C(X2)X1, X1C(X2)X1, S, SO, SO2, NRc, SO2NRc or NRcSO2: and Rb is selected from hydrogen, carbocyclic and heterocyclic groups having from 3 to 7 ring members, and a C1-8 hydrocarbyl group optionally substituted by one or more substituents selected from hydroxy, oxo, halogen, cyano, nitro, amino, mono- or di-C1-4 hydrocarbylamino, carbocyclic and heterocyclic groups having from 3 to 12 ring members and wherein one or more carbon atoms of the $C_{1.8}$ hydrocarbyl group may optionally be replaced by 0, S, SO, SO_2 , NR^c , $X^1C(X^2)$, $C(X^2)X^1$ or $X^1C(X^2)X^1$; X^1 is 0, S or NR^c and X2 is =0, =S or =NRc; Rc is hydrogen or C1.4 hydrocarbyl; R4 is a group YR5 or a group R6; Y is is NH, 0 or S; R5 is selected from (a) carbocyclic and heterocyclic groups having from 3 to 12 ring members; and (b) C₁₋₈ hydrocarbyl groups optionally substituted by one or more substituents selected from hydroxy, oxo, halogen, cyano, amino, mono- or di- C1-4 hydrocarbylamino, and carbocyclic and heterocyclic groups having from 3 to 12 ring members, wherein one or more carbon atoms of the C_{1.8} hydrocarbyl group may optionally be replaced by 0, S, SO, SO₂, NR^c, $X^1C(X^2)$, $C(X^2)X^1$ or $X^1C(X^2)X^1$, provided that when Y is 0, a carbon atom adjacent to the group Y is not replaced by 0; and R⁶ is a heterocyclic group having from 4 to 12 ring members and containing at least one ring nitrogen atom through which R6 is linked to the adjacent carbonyl group; wherein the carbocyclic and heterocyclic groups of substituents R5 and R6 are each unsubstituted or substituted by one or more substituent groups R7 as hereinbefore defined. Also provided are novel compounds, pharmaceutical compositions containing the compounds and methods for their preparation.

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